****

**ROORKEE UTTRAKHAND**

**PROJECT TITLE: Covid-19 Analysis dashboard**

**Name Soumya Singh**

**Aman Sharma**

**Akshansh Tyagi**

**Course MBA**

**Semester 1**

**Faculty Name DR Sourabh Poswal**

**Submission Date 22-11-24**

**ACKNOWLEDGMENT**

I would like to extent my deepest gratitude to all those who provide invaluable support and guidance through out the completion of this project. First and foremost I would like thank **DR SOURABH POSWAL** for the mentorship continuous encouragement and insightful feedback which I helped shape this project from it initial concept to its final realization. Their expertise and patience in guiding me through the complexities of data analysis and power bi made a significant impact on the overall quality and success of the project.

I would also express my sincere appreciation to the **COER UNIVERSITY** and the entire Department of **COLLEGE OF BUSINESS STUDIES** for providing me with the resource and tool necessary to complete fostered by institution has been instrumental in expanding my knowledge and skill set in business analytics and data visualization.

Last but not least I am deeply thankful to ,my friend for their unwavering support and understanding through out the course of this project. Their encouragement helped me stay motivated

and manage the challenge of balancing academic work with personal commitments.

This project could not have been completed without the collective contribution of these individual and organization and I am sincerely grateful for their assistance.

**COVID-19 Dashboard Report**

**Executive Summary**

The COVID-19 pandemic has created unprecedented global challenges, emphasizing the importance of data-driven decision-making. This report provides a detailed analysis of a Power BI dashboard designed to visualize COVID-19 data effectively. The dashboard consolidates key metrics like new deaths, new cases, recoveries, and active cases, allowing stakeholders to monitor trends at global, regional, and country-specific levels. It integrates user-friendly visualizations such as KPIs, bar charts, line charts, and donut charts, supported by interactive filters for in-depth analysis.

The insights derived from this dashboard are intended to assist policymakers, healthcare organizations, and international bodies like the WHO in making informed decisions about resource allocation, pandemic response strategies, and policy formulation.

**Introduction**

The COVID-19 pandemic has profoundly affected lives, healthcare systems, and economies worldwide. Tracking its progression is crucial to understanding the crisis, mitigating its impact, and planning recovery strategies. This Power BI dashboard serves as a tool for visualizing and analyzing COVID-19 data, enabling decision-makers to identify trends, evaluate recovery rates, and assess country-level performance.

The report explains the dashboard's structure, data presentation, insights, and recommendations, emphasizing its utility in supporting global pandemic response efforts.

**Project Objectives**

1. Data Consolidation: Aggregate COVID-19 data from multiple regions and countries to a single platform for ease of access and analysis.

2. Trend Identification: Provide a clear understanding of pandemic trends through visual representations of new cases, deaths, recoveries, and active cases.

3. Insight Generation: Highlight regional and country-specific disparities in case trends, recovery rates, and weekly increases.

4. Interactive Analysis: Enable users to filter data by country and region for focused exploration.

5. Actionable Recommendations: Use data insights to inform strategies for resource distribution and healthcare interventions.

**Data Overview and Description**

The dataset utilized in this dashboard is sourced from global databases, primarily the World Health Organization (WHO). It includes metrics on new COVID-19 cases, deaths, recoveries, and active cases. The data is segmented across six WHO regions (Africa, Americas, Europe, Western Pacific, Eastern Mediterranean, and South-East Asia) and provides country-level details for deeper analysis.

**Key Metrics:**

New Deaths: Daily reported COVID-19 deaths globally.

New Cases: Daily confirmed COVID-19 cases worldwide.

Active Cases: Total ongoing cases globally (after accounting for recoveries and deaths).

Recovered Cases per 100 Cases: Recovery rate calculated as the percentage of recoveries out of the total confirmed cases.

Weekly % Increase: Percentage growth of new cases over the last week, by region.

**Methodology**

1. Data Preparation: Raw COVID-19 data was cleaned to remove inconsistencies and missing values.

Calculated additional metrics, such as recovery rates and weekly growth rates.

2. Data Modeling: Established relationships between tables, linking countries, regions, and case statistics.

Added calculated columns for custom metrics like active cases and recovery percentages.

3. Dashboard Creation: Selected visualizations that best represent the data.

Ensured clarity and interactivity by incorporating slicers and tooltips.

4. User Interactivity: Added slicers to filter data by WHO regions or specific countries.Enabled drill-down capabilities for detailed insights.

**Data Presentation**

Dashboard Components:

**1. KPI Cards:** New Deaths (5,415): Highlights the global death toll for the reporting day.

New Cases (229,000): Shows the number of new confirmed cases globally.

Active Cases (6,358,000): Represents ongoing cases worldwide.

**2. Donut Charts:** Active Cases by Country: Breaks down active cases for the top affected countries.

New Deaths by Country: Visualizes the distribution of deaths across countries.

**3. Line Chart:** Total Cases by Country: Tracks cumulative cases for top-affected countries like the US, India, and Brazil.

**4. Bar Charts:** Weekly % Increase by WHO Region: Highlights weekly growth in cases for regions like Africa, Europe, and the Americas.

New Recoveries by Country: Identifies countries with the highest recoveries.

**5. Filters and Slicers:** Users can select specific countries or WHO regions for targeted analysis